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EXAMINER

IDOWU, OLUGBENGA O

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/716,998	Applicant(s) CRINON ET AL.	
	Examiner OLUGBENGA O. IDOWU	Art Unit 2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 10 – 19 are objected to because of the following informalities: The claims depend on claim 0. Appropriate correction is required.

Response to Arguments

2. Applicant's arguments with respect to claims 1- 20 and 22 - 26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor, publication number: US 2004.0015998 B1 in view of Addington, publication number: US 2004/0025181 in view of Westrick, patent number: US 7 165 264 in further view of Carlucci, publication number: US 2004/0015999 A1.

As per claims 1 and 22, Bokor teaches a processor-readable medium having processor-executable instructions that, when executed by a processor, performs a method comprising:

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Receiving, by head-end equipment from a content provider (head-end receiving content, [0025], lines 4 - 5), a digital television (DTV) application and its associated metadata (receiving television application and related information, [0032], lines 9 - 12),

Generating, by the head-end equipment a data grouping having application information, the application information being generated based on the associated metadata (application being pre-coded with triggers, [0027], program information(metadata) containing options to display commercials, [0038], lines 1 - 4, data grouping being referred to as the combination of the application, commercials and commercial triggers, [0024, 0027], head-end sending data to users, [0025], lines 5 - 6);

Sending, by the head-end equipment, a transmission to a DTV receiving unit, wherein such transmission comprises the data grouping (sending application to STB, [0025], lines 1 - 6, head-end sending data to users, [0025], lines 5 - 6), whereby the application signaling information is used by the DTV receiving unit to discover and launch the DTV application (application being pre-coded with triggers, [0027], program information(metadata) containing options to display commercials, [0038], lines 1 - 4).

Bokor does not teach wherein the receiving is facilitated by an asset definition interface;

In an analogous art, Addington teaches wherein the receiving is facilitated by an asset definition interface (asset distribution interface [0045]);

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bokor's interactive application system by including a receiving

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interface as described in Addington's asset capturing system, for advantages of more streamlined transmission and reception processes and better asset management.

The combination of Bokor and Addington does not teach wherein the headend equipment, the content provider and the DTV receiving device are each separate and distinct from each other.

In an analogous art, Westrick teaches wherein the headend equipment, the content provider and the DTV receiving device are each separate and distinct from each other (Fig. 3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bokor and Addington by providing a system wherein the main entities are distinct as described in the Westrick's interactive TV system for the advantage of making data available to a wider range of people, decentralizing data storage and allowing specialized duties to be performed by system elements designed for the duties.

The combination of Bokor, Addington and Westrick do not teach generating, by the head-end equipment, an application information table for conveying application signaling information to a DTV receiving unit.

In an analogous art, Carlucci teaches generating, by the head-end equipment, an application information table for conveying application signaling information to a DTV receiving unit (messages [0055], [0060], [0062], tabulated messages [0074], sending messages [0070]).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bokor, Addington and Westrick by including a system that sends tabulated information to the user, as described in Carlucci's program storage and retrieval system, for the advantages of keeping the user system well informed about the data that is being received, hence improving how the system handles ad substitution and programs going past their scheduled time.

As per claim 2, Bokor, Addington, Westrick and Carlucci teach a computer storage media as recited in claim 1, wherein the method further comprises storing, by the head-end equipment, the DTV application and its associated metadata (Bokor: storing the application, [0025], lines 9 -11, Westrick: Fig.3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

As per claim 3, Bokor, Addington, Westrick and Carlucci teach a computer storage media as recited in claim 1, wherein the method further comprises constructing and formatting by the head end equipment a DTV data service transmission which comprises the DTV application (Bokor: orchestrating delivery of services, [0022], lines 6 – 16, Westrick: Fig.3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

As per claims 4, Bokor, Addington, Westrick and Carlucci teach wherein the method further comprises generating, by the head-end equipment a content referencing

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identifier for the DTV application (Bokor: applications being on a carousel, [0025], lines 6 – 10, Westrick: Fig.3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

5. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor, publication number: US 2004.0015998 B1 in view of Carlucci, publication number: US 2004/0015999 A1.

As per claim 9, Bokor teaches a computer storage media having processor-executable instructions that, when executed by a processor, performs a method comprising:

Receiving, by a digital television unit from head-end equipment a transmission which includes application signal information about a digital television (DTV) application (receiving television application and related information, [0032], lines 9 – 12, application being pre-coded with triggers, [0027], receiver being digital [0022], lines 1 – 4), wherein metadata associated with the DTV application facilitates management and generation of the application information within the head-end equipment (application being pre-coded with triggers for displaying commercials, [0027], program information(metadata) containing options to display commercials, [0038], lines 1 – 4, Head-end sending triggers, [0027], lines 8 - 11);

presenting a user interface (UI) configured to inform a user about the DTV application, wherein contents of the UI are based upon the received application signal information (loading and displaying the application on a television screen, [0025], lines 7 - 10).

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The combination of Bokor does not teach an application information table

In an analogous art, Carlucci teaches an application information table (messages [0055], [0060], [0062], tabulated messages [0074], sending messages [0070]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bokor by including a system that sends tabulated information to the user, as described in Carlucci's program storage and retrieval system, for the advantages of keeping the user system well informed about the data that is being received, hence improving how the system handles ad substitution and programs going past their scheduled time.

As per claim 10, Bokor teaches a computer storage media as recited in claim 9, wherein the method further comprises receiving user input via the UI (transmission based on user request, [0025], lines 1 - 4).

6. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor, publication number: US 2004.0015998 B1 in view of Westrick, patent number: US 7 165 264 in further view of Carlucci, publication number: US 2004/0015999 A1.

As per claim 14, Bokor teaches a method for managing digital television (DTV) application signaling, the method comprising:

Receiving, by head-end equipment from a content provider, a DTV application and its associated metadata (receiving television application and related information,

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[0032], lines 9 – 12, head-end receiving content, [0025], lines 4 - 5), wherein the metadata drives data insertion equipment at the head-end equipment (application being hard coded from head-end with trigger point that depend on the kind of application that is running, [0028 -0030]);

constructing and formatting, by the head-end equipment a DTV data service transmission which comprises the DTV application (orchestrating delivery of services, [0022], lines 6 - 16);

the application information being generated based on the associated metadata generating, by the head-end equipment, a data grouping having application signaling information (application being pre-coded with triggers, [0027], program information(metadata) containing options to display commercials, [0038], lines 1 – 4, hardcoding triggers in applications, [0027], lines 4 - 6);

application-signaling, by the head-end equipment the DTV receiving unit via a transmission comprising the data grouping (using triggers to tell STB when to insert commercials, [0027]).

Bokor does not teach wherein the headend equipment, the content provider and the DTV receiving device are each separate and distinct from each other.

In an analogous art, Westrick teaches wherein the headend equipment, the content provider and the DTV receiving device are each separate and distinct from each other (Fig. 3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bokor's invention by providing a system wherein the main

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entities are distinct as described in the Westrick's interactive TV system for the advantage of making data available to a wider range of people, decentralizing data storage and allowing specialized duties to be performed by system elements designed for the duties.

The combination of Bokor and Westrick do not teach generating, by the head-end equipment, an application information table for conveying application signaling information to a DTV receiving unit.

In an analogous art, Carlucci teaches generating, by the head-end equipment, an application information table for conveying application signaling information to a DTV receiving unit (messages [0055], [0060], [0062], tabulated messages [0074], sending messages [0070]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bokor and Westrick by including a system that sends tabulated information to the user, as described in Carlucci's program storage and retrieval system, for the advantages of keeping the user system well informed about the data that is being received, hence improving how the system handles ad substitution and programs going past their scheduled time.

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As per claims 15, Bokor, Westrick and Carlucci teach a method as recited in claim 14, further comprising provisioning transmission bandwidth to transmit periodically the application signaling information built for the metadata (Bokor: broadcaster sending triggers or signals, [0027], lines 10 -12, Westrick: Fig. 3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

As per claim 16, Bokor, Westrick and Carlucci teach a method as recited in claim 14, wherein the metadata is part of an Extended Asset Definition Interface and is defined to correspond to information an application signaling generator of the head-end equipment needs to generate the application information table (Bokor: [0032], Carlucci: messages [0055], [0060], [0062], tabulated messages [0074],).

As per claims 17, Bokor, Westrick and Carlucci teach wherein the method further comprises generating, by the head-end equipment, a content referencing identifier for the DTV application (Bokor: applications being on a carousel, [0025], lines 6 – 10, Westrick: Fig. 3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

7. Claims 5, 6, 7, 11, 12, 18, 19, 23, 24 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor, publication number: US 2004.0015998 B1 in view of Addington, publication number: Us 2004/0025181 in view of Westrick, patent number:

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US 7 165 264 in view of Carlucci, publication number: US 2004/0015999 A1 in further view of Eyal, patent number: US 6 484 199 B2.

As per claims 5, 6, 7, 11, 12, 18, 19, 20, 23, 24 and 25, Bokor, Addington, Westrick and Carlucci teach an interactive television application system that gives the user the ability to control preferences in terms of viewing commercials and wherein the metadata drives data insertion equipment at the head-end equipment ([0028 -0030]).

Bokor, Addington, Westrick and Carlucci do not teach wherein the associated metadata comprises a data structure embodied on a processor-readable medium, the structure having fields comprising:

an application identifier field for identifying the DTV application; an originator identifier field for identifying the originator of the DTV application; an application-type field for indicating a type of the DTV application; and a rating field for indicating a rating of the DTV application, wherein the metadata drives data insertion equipment at the head-end equipment.

In an analogous art, Eyal teaches the associated metadata comprises a data structure embodied on a processor-readable medium, the structure having fields comprising:

an application identifier field for identifying the DTV application (identification, col. 12, line 46); an originator identifier field for identifying the originator of the DTV application (source, col. 12, lines 47); an application-type field for indicating a type of the DTV application (genre type, col. 12, line 50); and a rating field for indicating a rating of the DTV application (rating col. 12, lines 48), wherein the metadata drives .

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Therefore, it would have been obvious to one of ordinary skill in the art to modify Bokor, Addington, Westrick's and Carlucci's interactive application system by including more information such as the source, rating and application identifier as described in Eyal's media search and playback for the advantages of selecting applications that better fit user preferences.

As per claim 20, Bokor teaches a digital television application management system comprising:

A receiving means for receiving digital television application and its associated metadata by head-end equipment from a content provider (head-end receiving content, [0025], lines 4 – 5, receiving television application and related information, [0032], lines 9 - 12);

an application information being generated based on the associated metadata, a generating means, implemented in the head-end equipment, for generating a data grouping having the application information (application being pre-coded with triggers, [0027], program information(metadata) containing options to display commercials, [0038], lines 1 – 4, data grouping being referred to as the combination of the application, commercials and commercial triggers, [0024, 0027], head-end sending data to users, [0025], lines 5 - 6);

A sending means, implemented in the head-end equipment, for sending a transmission to the DTV receiving unit, wherein such transmission comprises the data

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grouping (sending application to STB, [0025], lines 1 – 6, head-end sending data to users, [0025], lines 5 - 6),

Bokor does not teach wherein the receiving is facilitated by an asset definition interface;

In an analogous art, Addington teaches wherein the receiving is facilitated by an asset definition interface (asset distribution interface [0045]);

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bokor's interactive application system by including a receiving interface as described in Addington's asset capturing system, for advantages of more streamlined transmission and reception processes and better asset management.

The combination of Bokor and Addington does not teach wherein the headend equipment, the content provider and the DTV receiving device are each separate and distinct from each other.

In an analogous art, Westrick teaches wherein the headend equipment, the content provider and the DTV receiving device are each separate and distinct from each other (Fig. 3, col. 4, lines 61 – 67, col. 6, lines 42 - 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bokor and Addington by providing a system wherein the main entities are distinct as described in the Westrick's interactive TV system for the advantage of making data available to a wider range of people, decentralizing data storage and allowing specialized duties to be performed by system elements designed for the duties.

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The combination of Bokor, Addington and Westrick does not teach the structure having one or more field selected from a group consisting of:

an application identifier field for identifying the DTV application;

an originator identifier field for identifying the originator of the DTV application;

an application-type field for indicating a type of the DTV application;

a visibility field for indicating the degree of control a user has over the DTV application;

and

a rating field for indicating a rating of the DTV application.

In an analogous art, Eyal teaches the associated metadata comprises a data structure embodied on a processor-readable medium, the structure having fields comprising:

an application identifier field for identifying the DTV application (identification, col. 12, line 46); an originator identifier field for identifying the originator of the DTV application (source, col. 12, lines 47); an application-type field for indicating a type of the DTV application (genre type, col. 12, line 50); and a rating field for indicating a rating of the DTV application (rating col. 12, lines 48), wherein the metadata drives .

Therefore, it would have been obvious to one of ordinary skill in the art to modify Bokor, Addington and Westrick's interactive application system by including more information such as the source, rating and application identifier as described in Eyal's media search and playback for the advantages of selecting applications that better fit user preferences.

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The combination of Bokor, Addington, Westrick and Eyal do not teach generating, by the head-end equipment, an application information table for conveying application signaling information to a DTV receiving unit.

In an analogous art, Carlucci teaches generating, by the head-end equipment, an application information table for conveying application signaling information to a DTV receiving unit (messages [0055], [0060], [0062], tabulated messages [0074], sending messages [0070]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bokor, Addington, Westrick and Eyal by including a system that sends tabulated information to the user, as described in Carlucci's program storage and retrieval system, for the advantages of keeping the user system well informed about the data that is being received, hence improving how the system handles ad substitution and programs going past their scheduled time.

8. Claims 8, 13 and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor, publication number: US 2004.0015998 B1 in view of Addington, publication number: US 2004/0025181 in view of Westrick, patent number: US 7 165 264 in view of Carlucci, publication number: US 2004/0015999 A1 in view of Eyal, patent number: US 6 484 199 B2 in view of Barrus, publication number: US 20050022122 A1 in further view of MacInnis, publication number: US 2003/0028899 A1.

As per claims 8, 13 and 26, Bokor, Addington, Westrick and Carlucci teaches an interactive television application system that gives the user the ability to control preferences in terms of viewing commercials and wherein metadata drives data insertion equipment at the head-end equipment ([0028 – 0030]).

Bokor, Addington, Westrick and Carlucci do not teach wherein the associated metadata comprises a data structure embodied on a processor-readable medium, the structure having fields comprising:

an application identifier field for identifying the DTV application; an originator identifier field for identifying the originator of the DTV application; an application-type field for indicating a type of the DTV application; a profile field for indicating a minimum profile of a system on which the DTV application will execute; a permission field denoting “sandbox” security permission of the DTV application; and a rating field for indicating a rating of the DTV application.

In an analogous art, Eyal teaches the associated metadata comprises a data structure embodied on a processor-readable medium, the structure having fields comprising:

an application identifier field for identifying the DTV application (identification, col. 12, line 46); an originator identifier field for identifying the originator of the DTV application (source, col. 12, lines 47); an application-type field for indicating a type of the DTV application (genre type, col. 12, line 50); and a rating field for indicating a rating of the DTV application (rating col. 12, lines 48).

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Therefore, it would have been obvious to one of ordinary skill in the art to modify Bokor, Addington and Westrick's interactive application system by include more information such as the source, rating and application identifier as described in Eyal's media search and playback for the advantages of selecting applications that better fit user preferences.

The combination of Bokor, Addington, Westrick, Carlucci and Eyal do not teach a permission field denoting "sandbox" security permission of the DTV application. Barrus teaches the metadata having fields that specify permissions (metada having permissions, [0122], lines 14 - 16).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination of Bokor, Addington, Westrick, Carlucci and Eyal by including permissions in the metadata as described by Barrus' system for the advantages of controlling changes and who can make them to systems.

The combination of Bokor, Addington, Westrick, Carlucci, Eyal and Barrus don't teach a profile filed for indicating a minimum profile of a system on which the DTV application will execute.

In an analogous art, MacInnis teaches indicating a minimum profile of a system on which an application will execute (system requirement, [0033]).

Therefore it would have been obvious to one of ordinary skill in the art to modify the combination of Bokor, Addington, Westrick, Carlucci, Eyal and Barrus by including a

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field for system requirements as described in MacInnis' system for the advantages of sending the application to only systems it will function on.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **OLUGBENGA O. IDOWU** whose telephone number is (571)270-1450. The examiner can normally be reached on Monday to Friday, 7am - 5pm Est.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendelton can be reached on 571 272 7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Olugbenga O Idowu/
Examiner, Art Unit 2425

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2425